

## Abstract

There are disclosed are a method for producing at least one compound selected from a carbonyl compound and a hydroxy adduct compound by an oxidative cleavage or addition reaction of an olefinic double bond of an olefin compound,

which contains

reacting an olefin compound with hydrogen peroxide, utilizing as a catalyst, at least one member selected from

(a) tungsten,

(b) molybdenum, or

(c) a tungsten or molybdenum metal compound containing

(ia) tungsten or (ib) molybdenum and

(ii) an element of Group IIIb, IVb, Vb or VIb excluding oxygen, and

a catalyst composition.